

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION**

used to shake sand or other surrounding mold media used in the casting process from the metal casting itself. The '513 patent, entitled "System and Method for Controlling Casting Shakeout Retention," discloses a system and method for controlling the retention time – the time that a casting is retained in its mold – of a casting being transported on a vibratory conveyor. This is accomplished first by imparting a vibratory force to the conveyor at a predetermined angle to the conveying surface whereby the predetermined angle determines the retention time, and then by modifying that angle. The '513 patent was issued on May 11, 2010, based upon a patent application filed on April 4, 2006 ("the original application"). The named inventor of the '513 patent is Charles Mitchell, a fifteen-year employee of Carrier and currently Carrier's Foundry Sales Manager.

Claims 31 and 32 of the '513 patent, the only two claims at issue in the instant motion, both depend from claim 30. Claim 30 is directed to the modification of the predetermined angle of a vibratory force applied to a conveyor, and reads as follows:

A method for controlling the retention time of a casting positioned on a conveyor comprising:

providing a vibratory conveyor having a conveying surface and a frame through which a vibratory force may be transmitted to the conveying surface;

imparting a vibratory force to said conveyor at a predetermined angle to said conveying surface whereby the predetermined angle determines the retention time of said casting; and

modifying the predetermined angle of vibratory force imparted to said conveyor to modify said retention time.

'513 patent col. 8 ll. 63-67-col. 9 ll. 1-6. Claims 31 and 32 add limitations relating to the modification of the *magnitude* of the vibratory force applied to a conveyor. *Id.* col. 9 ll. 10, 16, 18. Specifically, Claim 31 reads:

A method for controlling the retention time of a casting positioned on a conveyor as claimed in claim 30 comprising:

imparting a vibratory force of a predetermined magnitude to said conveyor whereby the **magnitude of force** determines the retention time of said casting; and

modifying the predetermined **magnitude of vibratory force** imparted to said conveyor to modify said retention time.

Id. col. 9 ll. 7-13 (emphasis added). Claim 32 reads:

A method for controlling the retention time of a casting positioned on a conveyor as claimed in claim 30 comprising:

reducing the magnitude of the force applied to said conveyor to slow the advance of the mold; and

increasing the magnitude of the force applied to said conveyor to discharge said casting from said conveyor after a predetermined time period.

Id. col. 9 ll. 14-20 (emphasis added).

Claims 31 and 32 were not a part of the original application that was filed on April 4, 2006. The two claims, originally numbered claims 52 and 53, were added by amendment in mid-2009. Similarly, claim 16 of the '513 patent, the only other claim in the '513 patent that references the "magnitude of vibratory force," was not a part of the original application. Claim 16 discloses a "speed control for each of said plurality of electric motors to independently vary the respective speeds thereof whereby the resultant magnitude of vibratory force imparted to said conveyor is varied by varying the speed of at least one electric motor." *Id.* col. 7 ll. 58-62 (emphasis added). The patent examiner allowed these three new claims without comment. (Theuerkauf Declar., Ex. B. at ¶ 27.)

General Kinematics has moved for summary judgment as to claims 31 and 32 of the '513 patent, arguing that these two claims are invalid under 35 U.S.C. § 112, first paragraph, for failure to comply with the written description requirement. General Kinematics argues that the

invention described in the original application relates only to the modification of the angle of vibratory force. According to General Kinematics, “[t]here is no mention of modification of the magnitude of force, either alone or in combination with the modification of the angle.” (Def. Memo. at 1.) In response, Carrier contends that the inventor of the ’513 patent had possession of the inventions disclosed in claims 31 and 32 at the time that the original application was filed and that a person of ordinary skill in the art would recognize that fact by reading the disclosures in the ’513 patent, its incorporated patents, and its prosecution history. Carrier also argues that General Kinematics cannot prevail on summary judgment without the opinion of an expert who is of ordinary skill in the art.

II. Standard of Review

Summary judgment is proper if “the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56 (a). In determining whether there is a genuine issue of fact, the Court “must construe the facts and draw all reasonable inferences in the light most favorable to the nonmoving party.” *Foley v. City of Lafayette, Ind.*, 359 F.3d 925, 928 (7th Cir. 2004). To avoid summary judgment, the opposing party must go beyond the pleadings and “set forth specific facts showing that there is a genuine issue for trial.” *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 250 (1986) (internal quotation marks and citation omitted).

A genuine issue of material fact exists if “the evidence is such that a reasonable jury could return a verdict for the nonmoving party.” *Id.* at 248. The party seeking summary judgment has the burden of establishing the lack of any genuine issue of material fact. See *Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986). Summary judgment is proper against “a party who fails to make a showing sufficient to establish the existence of an element essential to

that party's case, and on which that party will bear the burden of proof at trial." *Id.* at 322. The non-moving party "must do more than simply show that there is some metaphysical doubt as to the material facts." *Matsushita Elec. Indus. Co., Ltd. v. Zenith Radio Corp.*, 475 U.S. 574, 586 (1986). "The mere existence of a scintilla of evidence in support of the [non-movant's] position will be insufficient; there must be evidence on which the jury could reasonably find for the [non-movant]." *Anderson*, 477 U.S. at 252.

"Summary judgment is as appropriate in a patent case as it is in any other case." *C.R. Bard, Inc. v. Advanced Cardiovascular Sys., Inc.*, 911 F.2d 670, 672 (Fed. Cir. 1990). Because an issued patent is presumed valid, see 35 U.S.C. § 282, an accused infringer must prove invalidity by clear and convincing evidence. *Creative Compounds, LLC v. Starmark Labs.*, 651 F.3d 1303, 1310 (Fed. Cir. 2011) (citing *Microsoft Corp. v. i4i Ltd. P'ship*, 564 U.S. ---, 131 S. Ct. 2238, 2252 (2011) ("For nearly 30 years, the Federal Circuit has interpreted § 282 as we do today.")). Accordingly, a party "seeking to invalidate a patent at summary judgment must submit such clear and convincing evidence of invalidity." *Eli Lilly and Co. v. Barr Labs., Inc.*, 251 F.3d 955, 962 (Fed. Cir. 2001).

III. Analysis

Section 112, first paragraph, provides that a patent specification "shall contain a written description of the invention * * *." 35 U.S.C. § 112, ¶ 1. The written description requirement is satisfied when "the disclosure of the application reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date." *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc) (citing *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1563 (Fed. Cir. 1991)). The test is a flexible one, "requir[ing] an objective inquiry into the four corners of the specification from the perspective of

a person of ordinary skill in the art. Based on that inquiry, the specification must describe an invention understandable to that skilled artisan and show that the inventor actually invented the invention claimed.” *Ariad Pharms., Inc.*, 598 F.3d at 1351. The specification need not recite the claimed invention *in haec verba* – that is, in exactly the same terms as the amended application does – but it must do more than merely render the invention obvious. *Id.* at 1352. Although the specification “must describe the claimed invention with all its limitations,” *Tronzo v. Biomet*, 156 F.3d 1154, 1158 (Fed. Cir. 1998), a failure “to specifically mention a limitation that later appears in the claims is not a fatal one when one skilled in the art would recognize upon reading the specification that the new language reflects what the specification shows has been invented.” *All Dental Prodx, LLC v. Advantage Dental Prods., Inc.*, 309 F.3d 774, 779 (Fed. Cir. 2002). It is sufficient for purposes of the written description requirement that a person of ordinary skill in the art would find it “reasonably clear what the invention is and that the patent specification conveys that meaning.” *Id.*

Whether a specification complies with the written description requirement is a question of fact. *Ariad*, 598 F.3d at 1352. Nevertheless, the inquiry is “amenable to summary judgment in cases where no reasonable fact finder could return a verdict for the non-moving party.” *PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1307 (Fed. Cir. 2008). Because the written description requirement is focused on the adequacy of the specification’s disclosure, the patent-in-suit can provide sufficient evidentiary proof to demonstrate its own validity. *University of Rochester v. G.D. Searle & Co., Inc.*, 358 F.3d 916, 927 (Fed. Cir. 2004) (citing *PIN/NIP, Inc. v. Platte Chem. Co.*, 304 F.3d 1235 (Fed. Cir. 2002), and *TurboCare Division of Demaq Delaval Turbomachinery Corp. v. Gen. Elec. Co.*, 264 F.3d 1111 (Fed. Cir. 2001)). In other words, General Kinematics may prevail on summary judgment even without the

submission of an expert's report. See *e.g.*, *Centocor Ortho Biotech, Inc. v. Abbott Labs.*, 636 F.3d 1341, 1347 (Fed. Cir. 2011) (“A patent * * * can be held invalid for failure to meet the written description requirement based solely on the face of the patent specification.”); *Anascope, Ltd. v. Nintendo of Am., Inc.*, 601 F.3d 1333, 1339 (Fed. Cir. 2010) (finding that an expert's conclusion “cannot override the objective content” of the specification at issue).

In arguing that claims 31 and 32 meet the written description requirement, Carrier makes two primary arguments. First, Carrier contends that a person of ordinary skill in the art knew, at the time that the original application was filed, how to control different parameters of vibratory conveyors, including magnitude of force, by controlling the speed of both motors rotating the eccentric weights. See Resp. at 3. Because modifying the magnitude of force to control retention time was already known in the art, Carrier argues, the written description requirement is satisfied here. Regardless, Carrier asserts, when read by a person of ordinary skill in the art, the specification itself discloses the inventions found in claims 31 and 32 of the '513 patent.

A. Knowledge of a Person of Ordinary Skill in the Art

Because the test for adequate written description “requires an ‘objective inquiry into the four corners of the specification from the perspective of a person of ordinary skill in the art,’” in some instances, “a patentee can rely on information that is ‘well-known in the art’ to satisfy written description.” *Streck, Inc.*, 665 F.3d at 1285 (quoting *Ariad Pharms., Inc.*, 598 F.3d at 1351 and *Boston Sci. Corp. v. Johnson & Johnson*, 647 F.3d 1353, 1366 (Fed. Cir. 2011)). If, however, the “four corners of the specification directly contradict information that the patentee alleges is ‘well-known’ to a person of skill at the effective filing date, no reasonable jury could conclude that the patentee possessed the invention.” *Boston Sci. Corp.*, 647 F.3d at 1366.

Based on the disclosures of the '763 patent, the declaration of Carrier's expert, Dr. DiEuliis, and Mitchell's deposition testimony, the Court accepts the fact that, on April 4, 2006, a person of ordinary skill in the art knew that "change, alteration, varying or adjustment of a force means changing the magnitude of the force, the direction along which the force acts, or both." Def. Resp. to Pl. Add'l Facts ¶¶ 21, 23.; Theuerkauf Declar., Ex. B at ¶ 31 (opining that a person of ordinary skill in the art at the time that the original application was filed knew "that a change in the speeds of both driven motors, while maintaining a constant angle of attack, necessarily changes the magnitude of the vibratory force applied to the trough of a vibratory conveyor"); Horton Decl., Ex. 5 at 162:4-25, 163:1-8 (stating that it would be known in the industry to modify the magnitude of force by changing the speed of the motors).

This knowledge, however, differs from the '513 patent's specification in two ways. First, the specification and original claims of the patent are clearly directed to controlling the retention time of a casting on a vibratory conveyor by modifying the angle of vibratory force imparted on the conveyor. In other words, although those skilled in the art knew at the time that the application was filed that the term "modification of force" could mean changing either (1) the magnitude or (2) the direction (angle) of that force, or both, when discussing the invention of the '513 patent, the specification itself only refers to the second of these concepts, and not the first. Second, unlike what is known in the art – a change in the speeds of both motors while maintaining the angle of vibratory force necessarily would modify the magnitude of force – each reference in the specification to "motor speed" is directed to temporarily altering the speed of only one motor in order to modify the angle at which the vibratory force is applied to the conveyor. See, *e.g.*, Horton Decl., Ex. 2 at 10. Because the specification of the '513 patent

differs from what is well known in the art, Carrier may not rely on the knowledge of those of ordinary skill in the art alone to meet the written description requirement.

B. The Specification

Perhaps anticipating that the background knowledge of a person of ordinary skill in the art alone might not carry the day, Carrier also identifies two disclosures in the specification itself which, Carrier argues, would lead a person of ordinary skill in the art to believe that Mitchell's invention included the modification of *both* the angle of vibratory force *and* the magnitude of force. First, Carrier points to the "Background of the Invention" section, which states that "[m]any prior art systems vary conveying speed and direction by *changing either the direction or magnitude of a force* applied to a conveyor trough * * *." Horton Declar., Ex. 2 at 2 (emphasis added). The section goes on to incorporate by reference U.S. Patent No. 5,615,763 ("the '763 patent"), an "exemplary prior art system of this nature." Horton Declar., Ex. 2 at 2.¹ Dr. DiEuliis opines that the description of the "present invention" in the "Field of the Invention" section as "a system and method for controlling the retention time of an article being conveyed by selective and directional application of a vibratory force to a conveyor as a function of at least one sensed variable" (Horton Declar., Ex. 2 at 2), is enough to relate the description of the prior art to the invention claimed. Dr. DiEuliis concludes that the statements made in the Background of the Invention section are related to the invention itself because "the inventor is explaining that techniques in the prior art, such as 'changing either the direction or magnitude of a force' are applicable to his invention of 'controlling retention time.'"

The Court is not convinced that a reasonable jury could find that the reference to "magnitude of force" in the Background of the Invention section is anything but a description of

¹ The '763 patent, in turn, incorporates by reference U.S. Patent No. 5,064,053 ("the '053 patent") and U.S. Patent No. 5,404,996 ("the '996 patent"). Def. Resp. to Pl. Add'l Facts ¶ 17.

the prior art. Neither the discussion of the prior art nor the incorporation by reference of the '763 links the modification of the magnitude of force to the invention claimed in the '513 patent. Again, even though the prior art indicates that a person of ordinary skill in the art knew that it was possible to vary conveying speed and direction by changing either the direction or magnitude of a force applied to a conveyor trough, this disclosure does not suffice to show that, at the time of filing, Mitchell actually had invented a method that includes the steps of modifying both the angle and magnitude of vibratory force applied. Thus, while the inventions in claims 31 and 32 may be obvious to a person of ordinary skill in the art reading the specification, "a description that merely renders the invention obvious does not satisfy the requirement." *Ariad Pharms., Inc.*, 598 F.3d at 1352 (citing *Lockwood*, 107 F.3d at 1572 ("One shows that one is 'in possession' of the invention by describing the invention, with all its claimed limitations, not that which makes it obvious."))).

Nor does the second disclosure that Carrier identifies provide an adequate description of the inventions claimed in claims 31 and 32. Carrier points to a second section of the Background of the Invention section, which states that "[p]rior art vibratory conveyor systems are incapable of monitoring an article being conveyed to adjust the speed and direction of conveyance to impart *a desired amount of vibratory force* to an article before it discharges from the conveyor." Horton Declar., Ex. 2 at 3. (emphasis added). The "present invention" seeks to solve this problem, Carrier contends, by providing "an electronically adjustable system for controlling conveyor retention time * * *." Horton Declar., Ex. 2 at 4. Carrier argues that a person of ordinary skill in the art would read the reference to "a desired amount of vibratory force" as a method that includes both modifying the angle *and* the magnitude of force to control retention time.

Despite the fact that this section of the specification actually does describe Mitchell's invention, not just the prior art (see Def. Memo. at 14), it still is not enough to permit a reasonable jury to determine that claims 31 and 32 meet the written description requirement. In the industry, the phrase "desired amount of vibratory force" may generally refer to either a modification of either the angle or magnitude of force – or both. Nevertheless, a person of ordinary skill in the art would read the specification and understand that the invention Mitchell claimed was directed *only* to the modification of the angle of force. He or she would not reach the conclusion that Mitchell had contemplated altering the magnitude of force either alone or in conjunction with modification of the angle at which vibratory force applies. In other words, the specification discloses an invention that is narrower than what is known in the prior art.

C. Carrier's Remaining Arguments

The remainder of the evidence on which Carrier and its expert rely is either irrelevant to the written description inquiry or insufficient to demonstrate the existence of a triable issue. For example, Carrier twice cites claim 16 of the '513 patent to support its position. Carrier asserts that claim 16 "expressly teaches modifying the magnitude of force by altering the speed of the motors which rotate the shafts containing the eccentric weights." Pl. Resp. at 8. Carrier also argues that when read in connection with claim 16, the specification's discussion of the limitations in the prior art and Mitchell's solution – specifically, providing an electronically adjustable system for controlling conveyor retention time – conveys to a person of ordinary skill in the art that Mitchell had possession of the inventions in claims 31 and 32. But Carrier's reliance on claim 16 of the '513 patent is misplaced because claim 16 was not a part of the original application filed on April 4, 2006. While Carrier correctly notes that the original claims as filed are part of the specification for purposes of 35 U.S.C. § 112 (see *Hyatt v. Boone*, 146

F.3d 1348, 1352 (Fed. Cir. 1998)), claims added after the application is filed are not. See *Centocor Ortho Biotech, Inc. v. Abbott Labs.*, 636 F.3d 1341, 1350 (Fed. Cir. 2011) (stating that specific claim language that was not added until after the original application was cannot satisfy the written description requirement); *Purdue Pharma L.P. v. Faulding Inc.*, 230 F.3d 1320, 1328-29 (Fed. Cir. 2000) (pointing out that while “the amended claims define the invention,” support for the invention must be found in the specification as filed, and the amended claims cannot be used to provide that support). Thus, in determining whether claims 31 and 32 satisfy the written description requirement, the Court may not rely on the teachings of claim 16, or any part of Dr. DiEuliis’ opinion that is based on claim 16.

Carrier and Dr. DiEuliis’ reliance on the Patent and Trademark Office (“PTO”) examiner’s handling of claims 31 and 32 is similarly misplaced. Carrier contends that the fact that the PTO examiner allowed claims 31 and 32 means that the limitations in these claims did not inject “new matter” into the claims set forth in the original application. According to Carrier, because the claims were allowed, the PTO examiner necessarily concluded “that the subject matter of claims 31 and 32 were contained in and supported by the original application.” Pl. Resp. at 10. In reaching his conclusion that the written description requirement was satisfied here, Dr. DiEuliis explicitly based his opinion on “the fact that the PTO examiner determined that claims 16, 31 and 32, when added, did not introduce any new matter beyond what was already contained in the original application * * *.” Theuerkauf Declar, Ex. B ¶ 31.

Carrier overlooks the fact that the Federal Circuit has “dispel[led] the notion” that the failure of the PTO examiner to issue a new matter rejection automatically creates an “especially weighty presumption” of compliance with 35 U.S.C. § 112. See *AK Steel Corp. v. Sollac and Ugine*, 344 F.3d 1234, 1245 (Fed. Cir. 2003) (rejecting dicta from *Brooktree Corp. v. Advanced*

Micro Devices, Inc., 977 F.2d 1555, 1574-75 (Fed. Cir. 1993), on which Carrier relies). Instead, because compliance with § 112 is a factually intensive inquiry (see *Vas-Cath*, 935 F.2d at 1561), the amount of deference that the PTO examiner's action deserves must be evaluated on a case-by-case basis. See *AK Steel Corp.*, 344 F.3d at 1245; see also *ICN Photonics, Ltd. v. Cynosure, Inc.*, 73 F. App'x 425, 430 (Fed. Cir. 2003) (unpublished) (discussing the written description requirement). The presumption of validity "is far from determinative," and the Court may invalidate patent claims for including new matter, despite the fact that the PTO examiner allowed those claims. See *ICN Photonics, Ltd.*, 73 F. App'x at 430 (citing *TurboCare Div. of Demag Delaval Turbomachinery*, 264 F.3d 1111; *Purdue Pharma*, 230 F.3d 1320; *Augustine Med., Inc. v. Gaymar Indus.*, 181 F.3d 1291 (Fed. Cir. 1999) (holding certain claims invalid over prior art after finding that those claims were not supported by an earlier-filed parent application); *Lockwood v. American Airlines*, 107 F.3d 1565 (Fed. Cir. 1997) (same)). Here, because Carrier's expert admits that the PTO examiner allowed claims 31 and 32 "without comment" (Theuerkauf Declar., Ex. B ¶ 27.), there is no reason for the Court to conclude that the PTO examiner's decision deserves any more deference than the typical presumption of validity that must be overcome by clear and convincing evidence.

Carrier and its expert also appear to rely on the fact that Mitchell had actual possession of the inventions disclosed in claims 31 and 32, and that the '513 patent met the enablement requirement. However, a showing of actual possession "alone does not cure the lack of written description in the specification * * *." *Enzo Biochem, Inc. v. Gen-Probe Inc.*, 323 F.3d 956, 969 (Fed. Cir. 2002). Rather, "the written description requirement is satisfied by the patentee's disclosure of 'such descriptive means as words, structures, figure, diagrams, formulas, etc., that fully set forth the claimed invention.'" *Id.* (quoting *Lockwood*, 107 F.3d at 1572); see also *Arid*

Pharms., Inc., 598 F.3d at 1352 (stating that “it is the specification itself that must demonstrate possession”). For that reason, Carrier’s argument that Mitchell possessed the inventions in claims 31 and 32 – based on Mitchell’s deposition testimony and its expert’s opinion, but not the disclosures in the ’513 patent – cannot support a finding that the two claims meet the written description requirement.

Similarly, Dr. DiEuliis’ conclusion that a person of ordinary skill in the art, using (1) his or her knowledge that a change in the speeds of both drive motors could change the magnitude of the force, and (2) the information contained in the ’513 patent, “could make and use, without undue experimentation, a vibratory conveyor to practice the inventions” of claims 31 and 32 is not relevant to the written description analysis. Theuerkauf Declar., Ex. B ¶ 31. Whether a person of ordinary skill in the art could make and use the invention without undue experimentation is the test for enablement, which, although also found in 35 U.S.C. ¶ 112, first paragraph, is a distinct statutory requirement. See *Ariad Pharms., Inc.*, 598 F.3d at 1351. By contrast, “[t]he adequacy of the written description (*i.e.*, the disclosure) is measured from the face of the application; the requirement is not satisfied if one of ordinary skill in the art must first make the patented invention before he can ascertain the claimed features of that invention.” *New Railhead Mfg., L.L.C. v. Vermeer Mfg. Co.*, 298 F.3d 1290, 1295 (Fed. Cir. 2002) (affirming the district court’s grant of summary judgment of invalidity for failure to comply with the written description requirement).

“[T]he purpose of the written description requirement is to ‘ensure that the scope of the right to exclude, as set forth in the claims, does not overreach the scope of the inventor’s contribution to the field of art as described in the patent specification.’” *Ariad Pharms., Inc.*, 598 F.3d at 1353-54 (citations omitted). The requirement “is part of the quid pro quo of the

patent grant and ensures that the public receives a meaningful disclosure in exchange for being excluded from practicing an invention for a period of time.” *Id.* at 1354. Here, not only does the specification fail to specifically mention a limitation that later appears in the claims, Carrier has failed to present evidence from which a reasonable jury could conclude that “one skilled in the art would recognize upon reading the specification that the new language reflects what the specification shows has been invented.” See *All Dental Prodx, LLC, Inc.*, 309 F.3d at 779. For those reasons, the Court grants General Kinematic’s motion for summary judgment of invalidity of claims 31 and 32.

IV. Conclusion

For the foregoing reasons, the Court grants General Kinematic’s motion for summary judgment of invalidity as to claims 31 and 32 of the ’513 patent [42].



Dated: September 27, 2012

Robert M. Dow, Jr.
United States District Judge